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THE Chemist

JULY, 1946 VOLUME XXIII, No. 7

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(1) *To provide and enforce a code of principles of professional conduct which merits public esteem and justifies confidence in the integrity of the Chemist;*

(2) *To establish and maintain a standard of proficiency of such excellence as to insure competent and efficient service;*

(3) *To secure an adequate basic training for the profession and admit to fellowship in the Institute only those of proved education, experience, competency and character.*

(4) *To strive to enhance the prestige and distinction of the profession and to extend its influence and usefulness;*

(5) *To establish and maintain a register of membership in which there shall be a complete record of the training, experience and fitness for service of each member;*

(6) *To seek to improve the economic status of the profession by cooperating with employers to secure a satisfactory appreciation and evaluation of the services of the chemist;*

(7) *To provide a means for the appropriate recognition of distinguished service rendered by individual members of the profession;*

(8) *To cooperate with all agencies serving chemistry to make the profession of chemistry a powerful factor in the advancement of intellectual and material progress in the United States to the end that this nation shall assume its rightful place as a leader among the nations of the world in scientific thought and acomplishment;*

(9) *To lend support to the work of the chemical societies in the education of the public to a better appreciation of the contribution of the chemist to world progress;*

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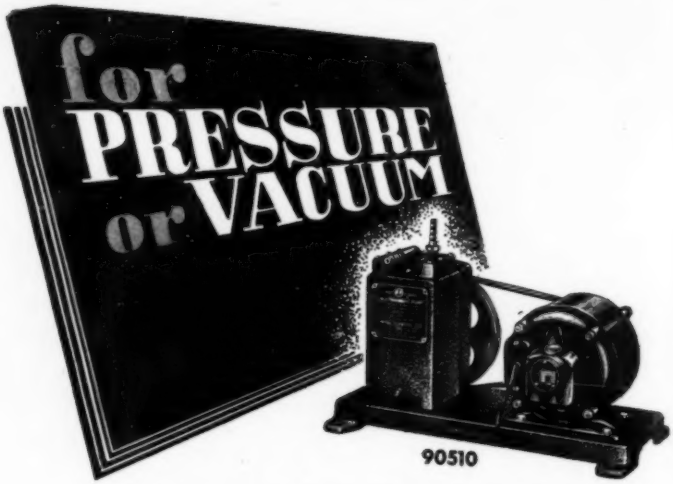

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A Professor Speaks

Dr. Raymond E. Kirk, F.A.I.C.
Polytechnic Institute of Brooklyn

Presented at the Symposium on Professional Status, The American Institute of Chemists, May 17th

IT IS a major responsibility to attempt to speak for the faculties of the professional schools of chemistry in America. Since I must speak for them, I would choose first the slogan of the teacher from Chaucer, "And gladly teach". Perhaps some of you have read the delightful autobiography under this title written by the late Professor Bliss Perry. If you have not read it, I commend it to you, for it mirrors the professional enthusiasm of the American university teacher as it is nowhere else depicted.

It is obvious that the professional status of the chemist starts with the professional aspects of the university curricula, and with the professional zeal of university teachers of chemistry. Only when their teachers are convinced of the high professional status of the chemist, and of the high standing of chemistry among the sciences, can the embryo chemist be surrounded by appropriate professional influences. I shall attempt to present in outline form the points that seem most important in furthering the professional status of the chemist as he is trained in our colleges and universities.

First, of course, there must be a *strong* department of chemistry. This means that there must be a department of chemistry that has earned its own self-respect by doing creditable professional work in chemistry. Only thus can the department deserve the esteem of the other departments of the institution. Only thus will other students in the institution give the work in chemistry the esteem that it must have, if major men in the department are to grow in professional zeal and enthusiasm. Only thus will the outstanding students in an institution be attracted to chemistry. In my opinion, the accreditation program of the American Chemical Society has done a great deal to achieve this end. The emphasis has been on realities regarding the professional achievements of the faculty, and on the professional atmosphere surrounding the work of the students, rather than upon minor details of curriculum. We are already seeing the curriculum in chemistry being awarded general esteem on the

part of students and staff in other departments such as it has not previously enjoyed.

To develop the professional consciousness of the student in chemistry, curricula must be planned that are fundamental, although up to date; curricula must be devised that are completely modern without being "faddish". The undergraduate curricula must be planned and administered in full recognition of the tremendous importance of English; of mathematics; of foreign languages, predominantly German and Russian; and of physics. These fields must be fully covered, even though it may mean a reduction in the number of credit hours devoted to chemistry. Less attention can be paid to specialized techniques of chemistry, and more to fundamentals. Traditional laboratory courses must be surveyed critically, with an eye to saving time without sacrificing training in fundamental techniques. No amount of training in highly specialized techniques will ever take the place of a thorough knowledge of fundamental analytical standards and their use.

Along with the carefully designed curriculum, there must be given a program of student activities centering around professional interests considered in the broad, rather than in the narrow sense. This program should include talks before the student chemical society on chemical research; but it might well, also, include debating. The magnificent achievements of American chemical industries should be presented; but, in addition, the student should be familiar with the beauties of prose and poetry. It is not enough for the professional chemist to realize the beauties of abstruse researches, he should also appreciate the beauties of the sunset, whether on canvas or in real life.

Admissions Program Important

A well conceived and soundly administered admissions program is highly desirable in improving the professional status of the chemist. Those responsible for the admissions program must devise fair and objective standards for the determination of ability and of aptitude. They must undertake the even more difficult task of evaluating subjectively the likely industry of the applicant for admission to the curriculum in chemistry. They must devise reliable subjective and objective procedures for evaluating the personality of the applicant. This must be done despite the extreme difficulty that surrounds such decisions made regarding adolescents. It is desired to repeat that rigid adherence to predetermined standards of ability, of industry and of personality will solve other problems that are so often referred to in public discussion regarding admissions procedures. I have known the chemical industries well for thirty years. As I know them, they will not discrim-

inate against men carefully chosen and thoroughly trained.

A well conceived and soundly administered program of student guidance, with appropriate student participation, is equally essential in furthering the professional status of the student chemist. As an undergraduate, the student chemist should know something about the wide range of opportunity in the profession of chemistry. All students seem to know about the opportunities for chemists and for chemistry with the giant companies of the chemical process industries. Unfortunately, many students do not know of the equally promising opportunities in chemistry and for chemists with companies like Westinghouse and RCA. An amazingly small number of student chemists are familiar with the gigantic number of excellent small companies in the field of chemistry. A student guidance program will bring these ideas and many others to the attention of the undergraduate.

This does not mean that a student guidance program need be devised which gives slavish deference to narrow and biased policies on the part of certain personnel departments. The university and the university professor owes much to the science of chemistry. They owe even more to their students, past, present and future. The university and the university professor owe nothing to the employing company! I have encountered personnel officers who seemed to have the idea that the universities are their debtors when graduates are employed, I am pleased to say that I have yet to encounter this attitude on the part of directors of research or executive officers. I am sure that I speak for my colleagues in American universities in saying that we shall always put first the best interests of our graduates. I assure you that university professors are always polite to recruiting officers from your companies, but I assure you, also, that we retain a lively sense of where our duties are located. May I say, parenthetically, that I am attempting to speak as provocatively as possible at this point! I am hoping to arouse some opposition, and some thought!

The University's Obligation

Why should an American university, however supported, train a man to know all about the chemistry of "dodads" for the "Dodad Corporation of America"? The Dodad Corporation of America should be grateful that American universities are training good chemists, chemists of high professional ideals, and of high integrity. Let the Dodad Corporation do its own special instruction. Let the Dodad Corporation do its own indoctrination about the specific merits of their own dodads.

The things that an employed chemist should expect from an employing organization are well and succintly

set forth in the now famous Northey report of THE AMERICAN INSTITUTE OF CHEMISTS. ("The Employed Chemist and His Employer", THE CHEMIST, Vol. 22, No. 9-10).

Furthermore, may I earnestly request the industrial chemists here present to cease asking the universities for raw Ph.D's who know all the things that the prospective supervisor has learned in the twenty years that he has been separated from his degree. Gentlemen, we were callow, too, when we came out of college. It seems at least possible to me that *you gentlemen* had some lessons to learn in personal relations. It seems conceivable that it took *you* a while to find out how to say *no* to the boss and make him like it. Whether this is true in your case or not, the speaker has paid high tuition for some such lessons. Very few of the lessons were included in his formal education in the university. Why ask the university to do it all?

It seems to me, then, that the professors of chemistry in America have an obligation to further actively the development of professional consciousness and professional zeal in the minds of student chemists. It is my opinion that in the main they have done it well in the past. It is, also, my opinion that it can be done much better in the future. I am sure that I represent my colleagues in saying that we rededicate ourselves to this important task.

May Resigns as Bureau Chief

Dr. O. E. May, F.A.I.C., chief of the Bureau of Agricultural and Industrial Chemistry, resigned on March 31st, and will be succeeded by Dr. L. B. Howard, assistant chief of the Bureau, according to P. V. Cardon, Agricultural Research Administrator. Dr. May left the Department of Agriculture to become associated with the Coca Cola Company in an executive capacity.

Dr. May served for twenty-three years in the Department of Agriculture. He was the first director of the Soybean Products Laboratory at Urbana, Illinois, and the first director of the Northern Regional Research Laboratory at Peoria, Illinois, where present methods were developed for commercial production of penicillin.

Dr. Howard, who was assistant to Dr. May at the Northern Regional Research Laboratory, later was head of the Commodity Byproducts Division of the Western Regional Research Laboratory at Albany, Calif.

"With victory in both sides of the world . . . we should not forget all might have been in vain if men of science had found no effective answer to the preparations which enemies to our freedom had for years been making in secret."

—Sir Henry Dale, president Royal Society of London.

A Consultant Speaks

Dr. Foster Dee Snell, F.A.I.C.
305 Washington Street, Brooklyn, New York

Presented at the Symposium on Professional Status, The American Institute of Chemists, May 17th

THERE are several accepted professions; medicine, law, podiatry, cosmetology. Do you question the last two? They are licensed professions in some states. Chemistry, as represented by the chemists, has felt until recently that it was sufficient unto itself, that it was a profession because the members said it was, until too late—or at least nearly so. Let us not be complete pessimists.

The professional status of the chemist concerns every employer because he has the task of employing chemists and wants to get real value. That problem also concerns the consultant. The professional status of the chemist concerns every chemist and there too it concerns the consultant—he himself is an employee of his clients. You might even say that the consultant finds himself in the middle.

Let us first consider the chemical profession as a whole—including the consultant. We may safely say that any trade, industry, or profession, if it could classify the quality of its members, would find them falling pretty much on a statistical bell-distribution curve. To the left would be the small classification of leaders in the profession, let us call it group A. In the center would be the great mass of the individuals concerned, which we will call group B. The corresponding group on the other hand would be the hangers-on or marginal members, about inclusion of which there would be some question. Let us call them Group C. The viewpoint of each of these groups can be different.

Let us consider them in the order A, B, C since the latter group is our most serious problem. Professional recognition means nothing to Group A, the leaders in the field. There are outstanding men who become well-known in any field; one of the leading designers of packages, or one of the leading men in interpreting statistics or one of the leaders in gauging public opinion. Intentionally those were selected from groups which do not have professional recognition. That some chemists become leaders in their own field is equally true.

Professional recognition is of major importance to Group B, the great

bulk of our profession. They want to practice the profession under the most favorable conditions. They want all or a majority of the items which your committee on Employer-Employee interrelations specified — fair salary, retirement annuity, sick leave, pleasant surroundings. They can expect to have them, if the distribution of those benefits is confined to the persons who are qualified. They cannot expect to have them if the employer has to take a gamble every time he hires a chemist as to whether that is what he gets. Many of the members of this group are in doubt as to what particular form of professional resognition they want. Probably the question arises from a lack of clear understanding of what various forms can do. There are almost none of this group who do not want some form of professional recognition. The question is what form.

Group C, the doubtful professionals, can be expected to oppose professional recognition by any standard for fear that they will be left outside. That is sheer self defense; they cannot be blamed. As a trade or an art they can practice chemistry if that is all that it is.

Let us look more closely at the people whose qualifications are doubtful, often non-existent. Perhaps in our profession the distribution curve is askew and the number of questionable members is unduly large. Probably many of us wonder about that. When a non-technical employer, who may be an excellent manager of a business, hires a chemist, he does not know himself what the desired qualifications are; he takes the man on faith, perhaps because he is a good talker. If he gets a man who is not a true member of the profession and who is not competent to do the work, the profession as a whole suffers in that a qualified man is not occupying that position. Later, when the manufacturer finds that the so-called chemist is not able to solve technical problems as expected, which assumedly a qualified chemist could solve, the whole profession gets a black eye. The cost to that manufacturer for chemical services is out of proportion to what he got. The manufacturer thereafter looks on us as chemists with suspicion based on his limited experience. He not only looks on the full-time employee chemist with that suspicion, but so looks on all chemists including the consultant. So the consultant for his protection has a stake in the proper classification of the profession, just as any other chemist has. That is his duty to himself and his colleagues.

Need for High Standards

The reputation of the consultant is in the hands of his employees, and therefore, even more than any other employer, he is obligated to watch over the professional status of his personnel. He should, and must, see to it that the members of his staff

belong to suitable professional and scientific societies because membership in those societies is some assurance of competence. Incidentally such memberships give the man a good deal in return for the modest amount of dues he pays. It is entirely possible that there would be a man who was well qualified as a chemist, who not only has no degree in chemistry but is unable to show in other ways that he is qualified for membership in professional or scientific organizations. It is possible but hardly probable and it is the exception which is so rare that it can be easily ignored.

The consultant has a duty to his personnel. Normally he will have both chemists and technicians. Which classification the people fall in is not necessarily measured by the degrees they have. A person may have been graduated in chemistry and be qualified for no more than a technician's job. It is part of the responsibility of the consultant that he does not stand sponsor for people as professional chemists who are not really qualified. Generally, neither this organization nor any other which looks over its applications for membership carefully, will accept as a member a man who is not recommended by his employer. That should be even more important if he works for a consultant—an employer particularly well qualified to judge.

There should be more than a haphazard method of judging the professional status of the chemist. No standard can be absolute but there should be something. If sufficiently well-known, it could be by national certification such as Dr. Warren Sperry has been advocating. It could be by membership in THE AMERICAN INSTITUTE OF CHEMISTS, where qualifications for membership have always been high. It could be by State licensing. It has been said that membership in the American Chemical Society is adequate certification to a man's qualifications. Some disagree with that. It would not have been true at one time, although the present intention is to demand professional requirements for full membership.

Permissive Licensing

The weight of evidence seems to indicate some official governmental stamp of minimum quality. The engineers have had it in the form of state licensing for well over twenty years, and seem to be happy with it. It is not fair to the chemist not to permit him to have a license, if this will help to establish his professional standing in the eyes of the public, and at times even more important, in the eyes of the law.

Opinion is divided as to whether the chemist should be required to be licensed, perhaps not. If not, there should be a permissive act. The parallel with accountancy is a good one. You may engage an accountant and

take your chances. You may engage a Certified Public Accountant and take much less chance. So for chemists, if no one is *compelled* to take a license, any one qualified should be permitted to do so.

Speaking as a consultant, a convincing method of demonstrating proper qualifications for a consulting chemist would be a big step forward. The consultants in general certainly want to be able to prove their qualifications and those of their employees. The present twilight zone of chemistry between profession, art, and black magic is not one that any of us finds desirable.

The 37th annual meeting of the American Oil Chemists' Society was held at the Roosevelt Hotel, New Orleans, Louisiana, May 15th to 17th. Two symposia were given, one on "Solvent Extraction" and the other on "Fats and Problems in Human and Animal Nutrition." Arrangements were in charge of Colonel H. P. Newton, F.A.I.C., chairman of the New Orleans Committee.

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Silverman Honored by Phi Lambda Upsilon

Dr. Alexander Silverman, F.A.I.C., head of the Chemistry Department, University of Pittsburgh, was made national honorary member of Phi Lambda Upsilon at its meeting April ninth in Atlantic City. In acknowledging the honor, Professor Silverman said he considered it a recognition of the fine cooperation of his many colleagues during the forty years he has taught and directed researches in the University of Pittsburgh.

Dr. J. Mitchel Fain, lately Colonel with the Army Air Forces, has rejoined the staff of Foster D. Snell, Inc., consulting chemists and engineers, 305 Washington Street, Brooklyn 1, N. Y., as account executive in charge of technical development for a group of manufacturers of chemical specialties. For the past four years, Dr. Fain has been on a military leave of absence.

The importance of scientific research in the development of new things is dramatically shown by the fact that almost half of the Du Pont Company's total gross sales for 1942 —consisted of products which either did not exist in 1928 or were not then manufactured in large commercial quantities.

—L. F. Livingston,
Manager of Du Pont Extension Division.

A Chemical Engineer Speaks

John M. Weiss, F.A.I.C.
52 East 42nd Street, New York 17, N. Y.

Presented at the Symposium on Professional Status, The American Institute of Chemists, May 17th

AT THE time of my graduation from college, if a layman asked my profession, the answer of "Chemist" usually evoked the question "Where is your drug store?" and with the answer of "Chemical Engineer"—"In what fire department are you?" Since then, largely due to the first world war and the phenomenal development of chemical industry which followed it, the general public is better informed as to the members of the chemical professions.

There is however much more to be desired, both for chemists and chemical engineers in the way of professional recognition. The general public classes them at the top of the white collar class — somewhat above accountants, but certainly below the professionals in law, medicine, and dentistry, but probably somewhat above the osteopath. The labor unions try to include them if they can, and place them in the position of technical employees rather than in the professional and management class. This tendency toward including technologists in trade unions is dangerous and must be opposed vigorously.

In chemical engineering, the advance toward high professional status has, I believe, been generally greater than in the case of pure chemistry. This may be ascribed to two factors —first the extended existence of the American Institute of Chemical Engineers; its high membership qualifications and the inclusion in its membership of a very large proportion of the representative and older members of the profession. Secondly, an important factor has been the initiation and extension of registration acts for engineers in the several states and the inclusion of chemical engineers as one class in most of them.

It seems unnecessary to comment extensively on the achievements of the American Institute of Chemical Engineers, today with a total membership of over 6,000 with active members forming about half of the total. The promulgation and enforcement of a high code of ethics, their cooperation with the other engineering societies, their publication policy, and a host of other activities have

raised them to the status of a profession on an equal footing at least with the older branches of engineering as represented by the so called Founder Societies.

THE AMERICAN INSTITUTE OF CHEMISTS is following the general lines of development of the Institute of Chemical Engineers and indeed has a much greater field from which membership might be drawn. Efforts must be made to increase its membership so that it is even more broadly representative of the profession. As the INSTITUTE sells itself to more and more chemists, it can speak with even greater authority to the general public. Its progress has been excellent and has resulted from a group of individuals with ideals. The mass effort of an even larger group will achieve more rapid progress, which the situation demands.

On the side of registration or licensing, there is today, sponsored by the AMERICAN INSTITUTE OF CHEMISTS, a determined attempt to secure licensing laws for chemists. This attempt is being vigorously opposed by other eminent members of the profession and there has been considerable debate, heated and otherwise, on the subject, in which the engineer's laws and their effects have been represented in very different fashion. I am not taking a firm position for either for or against licensing of chemists but am discussing certain experience in engineering, which may be worth consideration in connection with a law for chemists, if the profession, as a whole, desires such a law.

Registration Defines Professions

It may, however, be noted that registration or licensing has one strong point in its favor—that of legally defining the professional so as to give a sharp line of distinction when labor laws and trade union activities are considered. Some legal distinction between the technologist and the technician is necessary if the profession is to keep clear of such entanglements, and state registration if properly administered, seems to provide a definite differentiation. It may be possible to do this adequately in some other way, but so far, the way is not apparent.

When licensing laws were first proposed, some twenty-five years ago, the members of the Institute of Chemical Engineers were, in general, strongly opposed to them. They were however adopted in many states and today exist in all but a very few of our forty-eight political subdivsions. There has been continual change in the laws to improve and strengthen them and as the process advanced, the Institute came to realize that we were dealing with an actual condition, whether we liked it or not, and joined hands with the other engineering societies in preparing and promulgating a model law. Based on experience, this model has been

changed in detail from time to time and the tendency is for the state laws to conform more and more closely to this model.

The value and benefits due to such laws has been however much more difficult in realization than getting the laws passed. Besides the law, a vital requirement is the existence of a militant State Society of Professional Engineers who have as their job the improvement and perfection of the law, the exertion of pressure to see that the law is enforced and that the license board is predominantly engineering rather than political. We have had such a condition in New York State and much good has been accomplished. The use of the term "Engineer" has been suitably restricted, civil service engineering positions must be filled by licensed engineers and their salary classification has been materially increased in a number of cases so as to place them on a level consonant with true professionals. It has been common practice to include engineers on boards and committees in civic matters dealing even remotely with engineering subjects. The licensing board has been kept free of politics and is generally respected. All of this tends to a higher public regard for the profession.

The attitude of the chemical engineers has changed. A recent poll of membership, where, up to date, over half the members have voted, shows that about fifty-eight per cent of our active membership and seventy per cent of our junior membership favor licensing. In states where the law has been in force for some time, over half the active membership are already licensed. In a few states, the active membership is opposed to licensing by a small margin but in no state where there was any substantial number of votes involved, did the junior membership show a margin against it. This indicates that with time, the percentage in favor of licensing will tend to increase sharply.

Problems of Licensing Chemists

The registration or licensing of chemists presents different problems from those of chemical engineers. Engineering is not a single subject, but rather the application of physics, mathematics, economics, and chemistry. Engineering includes in particular a large number of subdivisions of physics for the well-rounded engineer. To base a licensing law for chemists on an engineering license law with merely the change of a few words does not appeal to me as the best procedure. Chemistry alone, is *per se*, a tool of many professions—engineering, biology, pharmacy, and medicine, just to mention a few. To define a chemist merely as one who uses the principles of chemical science seems to take in too much territory and does not adequately distinguish what a chemist is. And without an adequate definition, no law is

going to mean much from the standpoint of enforcement. This question of definition is one which merits extended and careful consideration by all chemists, so as to provide a sound base and avoid the opposition from other interests which loose all-inclusive definition would make inevitable.

The engineers had the opposition of architects at the start who regarded some of the loosely drawn laws as an invasion of their privileges, and rightly so. The chemist must take care to avoid this pitfall since certainly the opposition of pharmacists and especially the medical profession, could block, or at least emasculate, any proposed law, if these groups felt that their own activities and past habitual practices were to be circumscribed.

A Possible Solution

A possible solution of the difficulty is to consider the chemist as a branch of professional science and work toward a registration act for professional scientists of which chemists would be the most numerous class. This then would include the physicist, the biologist, and all the sciences of like calibre, all of whom are based on the same scientific fundamentals, just as all divisions of the engineering profession have the same base. If such a situation is not realized at the start we will have proposed laws for physicists and a host of others which can only engender confusion. Scientists, if they are to have registration, should work together and not at cross-purposes if they are to gain public respect.

We had our parallel to this in the early days of engineering laws. The civil engineers were usually the motivating force behind the legislation with mechanicals a close second. The electrical and chemical engineers were generally opposed, but not especially vociferous in their opposition outside of their own assemblies, but did much to retard the movement. If the chemists, the most numerous of the scientific divisions, take the lead now, they will gain further strength if they settle any disputes with the other branches of science directly, rather than in public forums. It will somewhat slow up procedure at the start, but will make for swifter progress in the end.

The chemists in science are in the position the civil and mechanical engineers were in engineering—the the most numerous body of the whole group. As such they have the grave responsibility of the leaders and must be sure of their own ground and their own agreement before they proceed, and if they do proceed, to be sure that the interests of other branches of science are not ignored.

There is also much to be said as to the character of the laws to be supported. In the engineering group, those laws in which registration was permissive rather than compulsory,

met with the least opposition. Americans, by tradition, do not like compulsion. Even with these, registration has steadily increased as individual engineers believed it to be to their professional advantage to do so. As time went on, some of the permissive laws became compulsory as far as responsibility for any type of engineering work was concerned and that is the pattern to which it is tending today.

The registration or licensing of chemists has, I believe, a fair chance of being administered so as to raise the standard of the profession, but only to the extent that the profession as a whole favors it. Premature efforts, before at least a majority of all chemists in a given state are sold on a bill and ready to register, are, I believe, foredoomed to disappointment on the part of the sponsors. The good to the profession will be in proportion to the ratio of favorable opinion within the profession itself. An attempt of a minority to impose its will on the majority, no matter how laudable the object, is in contravention of the principles of American procedure.

I believe therefore, that the first step is predominantly to work within your own organization so as to have as far as possible, a unanimity of opinion in the AMERICAN INSTITUTE OF CHEMISTS.

It is possible, even now, that in some states, the chemists as a whole, are strongly in favor of some type of license law. If so, let them have it. Under our system, fortunately I believe, the states are laboratories where legal experiments can be tried on a small scale without disaster, where a country-wide experiment might be catastrophic. If an experiment in a single state proves that the expedient is useful, others will follow. If there are several differing courses of action, experience in several states will usually point the way to the best conclusion, and laws, if defective can be amended or repealed.

Policy of State Licensing

The Institute of Chemical Engineers is now favorable to registration in principle, but as a national body, will not take a position in any one state which is contrary to the wishes of the members in that state. It will aid them, for and against, with such factual information as it may have available, to be used insofar as it applies to local conditions. It would seem that the AMERICAN INSTITUTE OF CHEMISTS would be wise to do likewise, and allow the policy to be set in any state by the men in that state. They can and should see that their membership is kept appraised of all developments but should refrain from taking a general position in opposition to their membership in any region.

I believe that the AMERICAN INSTITUTE OF CHEMISTS has done much to raise the standards of the chemical

profession and the esteem in which it is generally held. Their progress has been steady, but necessarily slow. The work should and must continue, but impatience should not be allowed to proceed in directions against the wishes of the majority. A united front within the profession is absolutely necessary, if outside efforts are to be successful and productive.

Gift to N. Y. Botanical Garden

An anonymous gift of $250,000 was received by the New York Botanical Garden, New York, N. Y., for research on the uses of plants in medicine. The research fund will be administered by Dr. William J. Robbins, director of the garden, for studies on fungi, molds and related subjects. Dr. Robbins and his associates recently reported the discovery of six new antibiotic substances which inhibit the growth of bacteria. The research staff of the garden will be increased and laboratory facilities will be expanded.

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Dr. Lazier Receives Herty Medal

Dr. Wilbur Arthur Lazier, director of the Southern Research Institute at Birmingham, Alabama, received the Herty Medal presented on May fourth at the meeting of the Georgia section of the American Chemical Society at Georgia State College for Women, Milledgeville, Georgia. Dr. Lazier has directed projects at the Southern Research Institute, which include development work on peanuts, tobacco, essential oils, textiles, paper, oleomargarine, and dairy products. In addition, Dr. Lazier has done considerable work in heterogeneous catalysis, high pressure synthesis, gaseous reactions, hydrogenation, longchain alcohols, and nylon intermediates.

Miron with Pan American Refining

Simon Miron, F.A.I.C., is now on the Research Staff of the Pan American Refining Corporation, Texas City, Texas. He was formerly with International Minerals and Chemical Corporation, Rossford, Ohio.

The construction of new plants and facilities in the expansion program of Hercules Powder Company is expected to enable the company to maintain the level of its employment at the war's end. In 1939, Hercules had 5,750 employees. During 1945 the employment level had risen to 10,000.

The Ohio Chemists Speak

John D. Coleman, Dayton, Ohio

Presented at the Symposium on Professional Status, The American Institute of Chemists, May 17th

SINCE receiving the invitation to speak, it has occurred to me that I am particularly fortunate in that I was not asked to come up with some new and compelling arguments for licensing of chemists, since almost anything that one could undertake would prove to be repetitious after the masterful and exhaustive treatise prepared by your own president, Dr. Egloff, whose clear and concise arguments have proven unusually difficult to belittle or refute.

Inasmuch as this is not the first attempt to effect passage of a licensing act for chemists, it might be well to provide some historical background in connection with the movement that is under way in Ohio, and to provide details of the makeup of the Ohio Chemists Committee on Professional Practice and the steps already initiated or contemplated for carrying out the aims and purposes of the organization.

The original impetus came from the Dayton Section of the American Chemical Society and was the direct outgrowth of a survey on professional and economic status within the Section. The spread of the activity to encompass the entire state, and even beyond, must be credited largely to the efforts of Mr. G. M. Juredine of *Isotopics* in publicizing the questionnaires used in the survey and arousing interest in professional matters with his pointed editorials.

When it was clearly established as a result of the survey that the majority of chemists in Dayton as well as all the other regions of the state were in favor of some form of legal recognition for chemists, contacts were made with the eight A.C.S. sections, five chapters of A.X.S., three branches of A.E.S., as well as the Chemical Division of the Ohio Academy of Science and the two A.I.C. chapters in Ohio to ascertain if there was sufficient interest to justify concrete action.

With the assurances that there was widespread interest among the members of these organizations and a desire for definite action, a meeting was called for June 23, 1945, in Columbus. There were fifteen delegates present at this luncheon and afternoon meeting representing all but two

of the major industrial areas.

The Ohio Chemists Committee on Professional Practice was the name adopted by the group after the decision had been reached that an organization should be formed to work for the broad objective of professional recognition for the chemist. An interim legislative Sub-Committee was appointed to prepare and submit a constitution and, if possible, the first draft of a Chemists Registration Act. A temporary chairman and secretary were selected to serve until the organization could be formalized through the adoption of a constitution and its approval by the member organization.

It would perhaps be appropriate to list the declared aims of the Ohio Chemists Committee as stated in Article II of the Constitution.

Objectives

1. The objects of the committee shall be:
   (a) To promote and develop public recognition of chemists as professional men.
   (b) To establish and promote the recognition and acceptance of a Code of Ethics for chemists in the state of Ohio.
   (c) To encourage interest and participation by chemists in civic, educational, and public affairs in the state of Ohio; and
   (d) To encourage cooperation among organizations in the state of Ohio, the membership of which is predominantly made up of chemists and/or chemical engineers in such matters as may be of mutual interest and advantage.

At the second meeting on July 21, 1945, eighteen delegates discussed the proposed constitution prepared and presented by the interim legislative Sub-Committee under the chairmanship of Dr. E. L. Luaces. The proposed constitution with some minor changes was approved and arrangements made for presenting it to the various member organizations for formal ratification. A Public Affairs Sub-Committee was appointed to act in the interval until formal organization of the $O.C_2P_2$ could be effected and to begin the task of acquainting both the profession and the public of the aims and purposes of the Committee and the necessity for legal recognition as one of the primary objectives.

At the third meeting on September 29, 1945, twenty-two delegates were present when the first draft of a Chemists' Registration Act, closely patterned after the Engineers and Surveyors Act, was presented by the Legislative Sub-Committee and discussed and explained in considerable detail by the chairman, Dr. E. L. Luaces, who was largely responsible for its preparation. It was empha-

sized that it was desirable that all members of the committee be familiar with the provisions of the Act but that it was imperative that those who might discuss the act or answer queries in regard to it should be correctly informed in regard to the provisions and their precise meaning.

Formal organization of the Ohio Chemists Committee was realized at the fourth meeting on November 24th when official delegates representing thirteen member organizations reported the ratification of the constitution by their groups.

Membership of Committee

The present roster of the Ohio Chemists Committee on Professional Practice is given herewith to indicate the diversity of interests and geographical distribution.

Dr. C. S. Adams, Ohio Academy of Science, Antioch College, Yellow Springs, Ohio

J. H. Bachman, A.C.S., Columbia Chemical Company, Akron, Ohio

Dr. M. J. Bahnsen, A.C.S., Ferro Enamel Corp., Lakewood, Ohio

R. F. Bescher, A.C.S., Koppers Co., Inc., Orrville, Ohio

Fred Carlson, A.C.S., E. I. Dupont de Nemours, University Heights, Ohio

Dr. John W. Chittum, A.C.S., The College of Wooster, Wooster, Ohio

John D. Coleman, A.C.S., Dayton, Ohio

L. A. Critchfield, A.E.S., United Chromium, Inc., Dayton, Ohio

Dr. George Deebel, A.X.E., Monsanto Chemical Co., Dayton, Ohio

Dr. W. C. Fernelius, A.X.E., Monsanto Chemical Co., Dayton, Ohio

R. F. Foster, A.C.S., Ohio Rubber Co., Willoughby, Ohio

Dr. E. G. Haas, A.X.E., B. F. Goodrich Co., Akron, Ohio

M. P. Hoffmann, A.I.C., Bartlett-Snow Co., Cleveland, Ohio

Dr. Harold A. Hoppens, A.C.S., Toledo, Ohio

S. B. Kuykendall, A.C.S., Firestone Tire & Rubber Co., Akron, Ohio

Harold A. Lamlein, A.C.S., Toledo, Ohio

T. F. Lavery, A.E.S., Battelle Memorial Institute, Columbus, Ohio

Dr. E. L. Luaces, A.I.C., Research & Development Corp., Dayton, Ohio

Maj. R. W. McLachlan, A.C.S., AAF, Wright Field, Dayton, Ohio

C. R. Milme, A.X.E., Goodyear Tire & Rubber Co., Akron, Ohio

W. E. Moline, A.E.S., National Cash Register Co., Dayton, Ohio

Dr. Harvey Moyer, A.C.S., Ohio State University, Columbus, Ohio

W. J. Neill, A.E.S., Columbus Metal Products, Inc., Columbus, Ohio

Dr. P. K. Rothemund, O.A.S., C. F. Kettering Found., Yellow Springs, Ohio

Dr. C. C. Ruchhoft, A.C.S., U. S. Public Health Service, Cincinnati, Ohio

H. S. Sherman, A.X.E., The Sherwin-Williams Co., Cleveland, Ohio

Dr. B. D. Thomas, A.C.S., Battelle Memorial Institute, Columbus, Ohio
R. W. Van Dolah, A.C.S., The Wm. S. Merrell Co., Cincinnati, Ohio
R. B. Waters, A.I.C., Cleveland, Ohio
Dr. James R. Withrow, A.I.C., Ohio State Univ., Columbus, Ohio
Frank J. Zyanut, A.X.E., Ferro Enamel Corp., Cleveland, Ohio

Permanent officers were elected to guide the committee during the period ending in July 1946, and similarly Legislative and Public Affairs Sub-Committees to replace those set up to serve in the interval between their appointment for the formal organization of the Committee. Agreement was also obtained on the proposal to incorcorpate the committee as a non-profit organization under the laws of Ohio.

One meeting has been held to date in 1946, on March 9th which was principally devoted to examination and discussion of all the criticisms received concerning specific sections of the proposed Registration Act and agreement on the answers to be provided by the Legislative Sub-Committee. A high-light of the meeting was the discussion of the various provisions of the act by Senator Roscoe Walcutt, senior senator from Franklin County, and his comments on the practical problems involved in the introduction and handling of proposed legislation in the assembly. On March 27th the Secretary of State announced that a charter had been granted incorporating the Ohio Chemists Committee on Professional Practice as a non-profit organization under the laws of the State of Ohio.

A Representative Organization

We have provided historical highlights of the inception and initial development of the Ohio Chemists Committee on Professional Practice and have indicated in the process something of the unique makeup of the committee. Here we have not a single organization fighting a "lone wolf" engagement but representatives of all the principal chemical organizations in the state who have approved the constitution and with it the avowed aims of the committee and have designated their official delegates and alternates to represent their interests in the deliberations of the committee.

It should not be concluded that there is an unanamity of opinion among chemists in Ohio in regard to either the Ohio Chemists Committee or its initial goal of a registration act for chemists. Though they are in the minority there are many who do not see the need for an organization such as the committee and others who either are unconvinced as to the need for or strongly opposed to licensing. This minority can render a very real service to the profession by acting as sentinels to insure that any legislation that is proposed and passed

through the Assembly is free from inconsistent and undesirable provisions. Our hope is that they will be vocal, honest, and forthright in their opposition and constructive in their attitude so that we can all derive benefit from their scepticism.

In order to provide a picture of the broad plan being pursued by the Ohio Committee we might state that the proposed Chemists Registration Act has been presented to and approved by the Ohio Society of Professional Engineers. It has been presented to and is under consideration by the Ohio State Pharmaceutical Association, the Committee on Administrative Law and procedure of the Ohio Bar Association, and the Ohio Medical Association. In addition it has been presented for review and criticism to the Ohio Manufacturers Association, the Ohio Chamber of Commerce, Ohio Farm Bureau Federation, the Ohio Industrial Commission, and the Ohio Educational Association.

Some members of the Senate and House of the Ohio Assembly have already been contacted and plans have been initiated for the sponsoring and introduction of the bill next January when the Assembly convenes again. Between now and January 1st we expect to arrange to make personal contacts with and provide a copy of the act for every member of the Assembly so that they will be informed in advance regarding the act.

Efforts have already been initiated to bring the chemist and his desire for full professional recognition to the attention of business and professional people through the medium of talks before noontide and service clubs and individual discussion with judges, lawyers, physicians and professional people in general.

Registration Act Distributed

In order that all chemists in Ohio might be fully acquainted with the proposed Registration Act for Chemists, printed copies of the Act were prepared through the cooperation and generosity of the Miami Valley Chapter of THE AMERICAN INSTITUTE OF CHEMISTS and forwarded to every chemist and chemical engineer in the state whose address was available. Copies were also furnished to many members of the other professions and numerous individual and group requests have been received from all over the country. To date over 11,000 copies of the proposed Act have been distributed.

Regardless of the outcome of the initial major project of the Ohio Chemists Committee, there will still have been many lasting benefits, for the chemists of Ohio. In the Dale Carnegie tradition, we have learned how to make friends and influence people. The pleasant contacts at the professional level which might be considered as a by-product of the activity are sufficient compensation, in the opinion of many of the com-

mittee members, for the time and money expended.

There are some who apparently feel that the chemists in Ohio should delay action in regard to obtaining a license law until some sort of national referendum among chemists is undertaken. We feel that this proposal is lacking in logic since in any progressive movement there must always be some groups more advanced in the development than others, and we believe that this is certainly characteristic of the growth of professional consciousness among chemists and engineers in Ohio. We have added confirmation of this premise in the fact that the Ohio Society of Professional Engineers is the largest in point of membership of all of the state societies and by mid-year Ohio will have the largest number of registered professional engineers of any state in the union and there will be more registered engineers in Ohio than licensed physicians and practicing lawyers.

It is our understanding that some members of the chemical profession have expressed the fear that if we actively pursue the quest of a licensing law for chemists in Ohio that we will probably be successful; and further, if such an Act is placed on the statute books in Ohio that chemists in other states will soon follow the example set in Ohio. It would thus seem that the fundamental conflict revolves around the question of the operation of democratic procedures.

There are some chemists who belittle the need for legal registration as a protective measure, saying that they have never found that the public needed protection from unqualified individuals who posed as chemists. They no doubt have forgotten the old saying that it only takes one rotten apple in the barrel to spoil the entire contents, and it is clearly evident that they either do not care or have failed to consider the ultimate effect of this laissez faire policy on the profession itself.

State Units Effective

The concept of individuals with common aims and interests forming a state organization in order to benefit mutually the profession and its members is certainly not novel or unique, in fact, practically every established profession has adopted the "grass roots" type of organization with its strongly integrated local, state, and national branches. Any other type of regional aggregation is lacking in logic since particularly in legal or legislative matters only residents of a state can have a voice in the deliberations.

We feel certain that the awakening of a professional consciousness among chemists in Ohio and other states of the union foreshadows a definite strengthening of the chemical profession in this country, and it would not appear an act of wisdom

for those who oppose this trend to attribute the development to a small minority of radical zealots. We deplore any division that may occur in the profession as a result of such misguided and ill-considered judgment.

It has been an inspiration to meet and work with the splendid group that now comprises the Ohio Chemists Committee on Professional Practice and we are more convinced than ever that the chemist is rapidly approaching the time when he will be ready and willing to assume the duties, responsibilities and advantages of recognition as a professional man.

It is a distinct pleasure and privilege to have this opportunity to present a picture of what has been accomplished by the chemists of Ohio through a pooling of interests and actions of progressive members of the profession on a statewide basis. We sincerely hope that some of the methods as well as mistakes may prove helpful to those who may desire to pursue a similar course.

Without attempting in any way to criticize your very able chairman for his choice of titles for the papers presented, we would like to suggest that, based on actual performance, a more appropriate heading for this paper would be not "The Ohio Chemists Speak" but "The Ohio Chemists Act"!

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Dr. Gustav Egloff, F.A.I.C., recently completed a speaking tour which included the Iowa Section of the American Chemical Society, Iowa City, Iowa; the Ames Section, Ames, Iowa; the Omaha Section, Omaha, Nebraska; the Nebraska Section, Lincoln, Nebraska; and the Sioux Valley Section, Vermillion, South Dakota. Dr. Egloff's subject was "Petroleum as a Chemical Industry."

Dr. Robert J. Moore, F.A.I.C., technical co-ordinator of the Bakelite Corporation, spoke on "The Profession of Chemist and State Licensing" at the meeting of the Pennsylvania Chemical Society, held at State College, Penna., on May 31st. Dr. George D. Beal, assistant director of Mellon Institute and president of the society, presided. On June 18th, Dr. Moore will address the Gamma Chapter of Phi Beta Kappa at the Hotel Plaza, New York, on "Synthetic Resin Plastics".

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Professor Roger Adams, head of the Department of Chemistry of the University of Illinois, has been awarded the Davy Medal of the Royal Society of London, in recognition of "his extensive researches in the field of organic chemistry and of his recent work in the alkaloid field. Dr. Adams is at present in Berlin as special adviser to Lt. Gen. Lucius D. Clay, deputy military governor of the American Occupation Zone in Germany.

Auditory Record of Steel Industry Made

Walter S. Tower, president of the American Iron and Steel Institute, recently presented a master recording of an "ear-picture" of the entire steel-making process to the American Foundation for the Blind. The Foundation will distribute reproductions of the record to schools and libraries for the blind. Dr. Robert B. Irwin, executive director of the Foundation, stated that this gift marked a new advance in the education of the blind, and he hoped that other industries would follow this example.

National Roster Assists Veterans

The National Roster of Scientific and Specialized Personnel is concentrating on the work of assisting professionally qualified veterans to locate suitable civilian employment. Present plans include the undertaking of surveys to secure statistical information which will indicate the changes which have taken place as a result of the war in the economic status of various professions.

The Roster has three functions: (1) To maintain as complete a central registry as posssible of scientific and professional personnel; (2) To provide a placement service, and (3) To serve as a central clearing house for information concerning the professions. Total registrations number 396,867, of whom 61,509 are listed under "chemistry" and 9,608 under "physics".

Chemical Condensates

Ed. F. Degering, F. A. .I. C.

According to *Nutritional Observatory,* the three "quickest" of the "quick energy" foods, in probable order of decreasing response, are sucrose, fructose, and glucose.

According to Curran and Evans of the U.S.D.A., the extraordinary effectiveness of penicillin against bacterial spores of high thermal resistance, coupled with its nontoxic nature, suggests a role of possible utility in nonmedical fields, including that of food preservation.

Certain synthetic dyes, according to Professor F. S. Thatcher of McGill, increase the potency of the sulfa drugs.

Research, according to *The Research Viewpoint,* is a form of market insurance. When one becomes his own competitor, he has no fear of outside competition.

A compact liquid oxygen unit, developed by Petr Kapitsa of Russia, produces about six times as much liquid oxygen as units of previous types.

Lignin, "the largest waste in industry", is useful as a fertilizer to add humus and organic matter to depleted soils, according to Dr. Robert S. Aries of Yale University.

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Annual Reports

Annual Report of the President, 1945-46

The American Institute of Chemists brings to a close its activities for the year 1945-1946 with the award of its Gold Medal to Robert Price Russell, president of the Standard Oil Development Company. It is indeed appropriate that at our first annual meeting after victory we should recognize one who has contributed so much to the successful conclusion of the war.

During the past year, the membership of the Institute has continually increased to reach the all-time high

of 2042. A new chapter, the New Jersey Chapter, brings the total number of local active groups to twelve. In spite of an increase in expenditures during the past year, the bank balance is higher than it has ever been before. Indeed, the financial position of the Institute is the best in the twenty-three years of its existence.

The INSTITUTE deeply regrets the resignation of Mr. Howard S. Neiman, who has been our able Secretary for twenty years. In tribute to his many years of service, the Council elected him to the post of Honorary Secretary of the INSTITUTE.

In an effort to keep scientists, technologists, and engineers abreast of developments pertaining to professional affairs, every month reprints or mimeographed copies of articles from many sources are sent out to all Chairmen of local sections of the following societies:

American Chemical Society
American Institute of Chemists
American Institute of Chemical Engineers
American Institute of Mining and Metallurgical Engineers
Western Society of Engineers
Society of Automotive Engineers
Industrial Research Institute

and many individuals. These articles cover such subjects as the patent system, science foundation legislation, labor legislation, unionization, and atomic energy.

Dr. Northey's excellent report for the Committee on Employer-Employee Relations, which was published in THE CHEMIST, has been in great demand. Ten thousand reprints were made to meet the requests from many directors of research, industrialists, colleges, universities and other interested parties.

The Committee on Contracts published its report, on which it has been working since 1944, in the May issue of THE CHEMIST.

The INSTITUTE was requested to suggest a list of observers for the atomic bomb test at Bikini Atoll. At least two of our members have been selected.

Progress has been made in the direction of state licensing of chemists. During the past year, this issue has been brought to the attention of nearly every chemist in the United States through articles prepared by INSTITUTE members and open discussions at its meetings. Reprints of "Should Chemists Be Licensed?—Yes!" which appeared in February 10 issue of *Chemical and Engineering News*, were purchased by the INSTITUTE for distribution to five thousand persons.

Special credit is due to the Ohio Chemists' Committee on Professional Practice which was initiated by the Miami Valley Chapter of the INSTITUTE. This committee, representing the various chemical societies of the state, has drafted a licensing bill which will be presented to the Ohio

State Legislature in 1947. Similar bills have been prepared or are to be prepared for introduction into the Illinois, Louisiana, and New York Legislatures as a result of the efforts of INSTITUTE members in those states.

Although no licensing acts have yet been passed, the INSTITUTE may take credit for stimulating thought on this subject and thus increasing the interest of chemists in professional matters. This impetus has resulted in the activation of professional status committees in other chemical societies and establishment of such committees in organizations which had none before.

Never in the history of chemistry has the compensation of chemists been so high as at present. As a result of the development of the atomic bomb, the chemist has also attained a new level of recognition in the eyes of the general public. These facts should inspire us to strive with even greater effort to raise the professional and economic status of the chemist.

The INSTITUTE strongly recommended to the New York Civil service Commission that its salary classification for chemists should be raised to the level of the federal classification of civil service salaries.

Much as the INSTITUTE has accomplished, the tempo of our activities must be markedly increased to attain its objectives.

—DR. GUSTAV EGLOFF,
President.

Annual Report of the Secretary 1945-1946

The National Council held eight meetings during the year, with an average attendance of eleven councilors and officers. The following actions upon membership were taken:

Elections

Life Members	1
Fellows	138
Members	43
Associates	18
	200
Reinstated to Fellow Membership	5
Total	205

Loss of Membership
Resignations

Fellows	70
Members	10
Associates	13
Total	93

Dropped

Fellows	14
Members	6
Associates	17
Total	37
Deceased F.A.I.C.	22
Total Loss of Membershiip	152
Total Increase in Membership	205

Actions

Fellows to Life Members	2
Members to Fellows	8
Associates to Fellows	3
Associates to Members	5
Student to Associate	1

Total Membership

	May 1945	May 1946
Fellows	1557	1603
Members	182	206
Associates	219	200
Students	1	
Life Members	24	27
Honorary Members	6	6
Totals	1989	2042

I regret to make note of the following deaths during the season:

James R. Adams (F)
Kenneth E. Burgess (F)
Frank W. Douglas (F)
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J. Laurence Whitman (F)
Thomas A. Wright F)

The present membership is the largest in the history of the Institute. This increase is evidence that, notwithstanding the fact that the war did not end until the summer of 1945, the interest shown by chemists in their profession is most encouraging.

The many activities of the Institute are covered in detail in the reports from the president, chapters, and committees.

It is desired to express appreciation to the chairmen of the various chapters, to the chairmen of the committees of the INSTITUTE, and to all those associated with them. They have given unstintingly of their time in carrying out their various duties, and many of the accomplishments of the INSTITUTE during the year are accredited to their efforts.

—LLOYD VAN DOREN, *Secretary.*

Report of Executive Director May 1, 1945 to March 5, 1946

When my coming to the INSTITUTE was originally discussed with Dr. Egloff in February 1945, it was my feeling that it would require about three years to place the INSTITUTE on a firm financial basis. In April of last year, Dr. Egloff advised me that the council decided to undertake an accelerated program on a two year basis, results of these years to be used as a basis for further plans. The program to be undertaken was to include the following:

1. Put the headquarters office on an efficient operating basis.
2. Try to increase the revenue from THE CHEMIST.

3. Increase the number of members.
4. Reactivate inactive chapters and attempt to organize new chapters.
5. Improve the public relations of the INSTITUTE.

The time schedule for these activities was therefore readjusted to a two year basis, the first year being devoted mainly to building a firm foundation for the more active expansion program to be followed in the second year. Below is a resume of the work we have accomplished this first year:

Office Rehabilitation

While my contact with the INSTITUTE started officially last May, all activities were carried on from my home in Chicago until August 1st when I moved to the New York office. The initial reorganization of the office was handicapped by shortage of help and by the necessity of training new persons in the procedures involved. We have been able to go over all our files, put them in a business-like condition and check all our records so that we know where we stand. All office procedures have been reviewed and standardized. Form letters have been drafted and procedural guides have been prepared. Manuals of procedural guides for all officers and committee chairmen are also in preparation. All of these guides will be of an estimable value to all incoming personnel both on the office staff and on the officer and committee chairman level.

Increased Membership Activity

Last fall I visited the chapters in the eastern part of the United States and judging from the mail received since then, it is felt that these visits have resulted in a better understanding between the local chapters and the national organization and also increased activities for new members.

Immediately after the fall trip, an active membership drive was started with a direct mail appeal and with follow-up letters to chairmen of all local chapters and to key men in various parts of the country. This campaign was then coordinated with the work of a national membership committee, and definite results are now beginning to appear.

Chapter Activities

During the last half year, a definite drive has been started for the formation of new chapters. A new chapter has been started in New Jersey and additional chapters in Connecticut, Massachusetts, Maine, Kansas, and Texas are under consideration or in some stage of formation. As a result of the visit to the chapters last fall and to the letters that have been exchanged with the various local chapter chairmen, it is felt that all our chapters, with perhaps the exception of New Orleans, have materially stepped up their tempo.

Public Relation Activities

In addition to the above activities,

a direct attempt has been made to build up a better understanding of the part the INSTITUTE is playing in cooperation with other technical associations and business groups. Wherever possible, we have approached the key men in other technical societies such as the American Chemical Society, American Institute of Chemical Engineers, Industrial Research Institute, Food Research Institute, etc., told them of our activities and tried to enlist their cooperation. While it is rather difficult to evaluate what has been accomplished, it is my considered opinion that a wholesome feeling of cooperation exists between the INSTITUTE and these organizations.

Much has been accomplished since this program got under active way last August. It is hoped that much more can be accomplished as additional funds are available.

ARTHUR SCHRODER,
Executive Director.

Membership Annual Report 1945-46

During the past year the Membership Committee carried on a campaign for new members through the local chapters. The chairman of each chapter was asked to serve on the National Membership Committee, and in every case his acceptance was received or he designated the chairman of the local chapter membership committee to serve in his place. In some instances both served actively.

These chapter membership representatives were supplied with INSTITUTE literature and membership blanks as well as with a letter suggesting what were believed to be the best methods of obtaining new members. They were also urged to offer their own suggestions. Experience has amply shown that the most effective means of securing new members for the INSTITUTE is by personal contact between members and their friends and associates. A membership "drive" in the ordinary sense of the word is felt to be out of place in a professional society.

It is, of course, not possible to gauge accurately the results of the Membership Committee's campaign, but the increase of the INSTITUTE's active membership of 205 indicates that it certainly had some effect. The INSTITUTE's total membership now stands at 2042, the largest in its history.

As its work for the year comes to a close, the Membership Committee wishes to emphasize that the best means of increasing the INSTITUTE's membership is through the activities of individual members in contacting their non-member friends, who possess the qualifications for INSTITUTE membership. This is the best means of assuring the maintenance of our high professional standards. The

problem is to make each individual member conscious of his obligation to bring in one or two qualified members each year instead of placing the burden on a few very active members. Without this cooperation on the part of the rank and file of INSTITUTE members, no Membership Committee can accomplish very much.

The Membership Committee would be ungrateful indeed if it did not express its deep appreciation to Dr. Robert J. Moore and to President Egloff for their untiring efforts in bringing in desirable new members.

—DONALD PRICE, *Chairman.*

Licensing
Annual Report 1945-46

Your present committee on Licensing has functioned during the past year in cooperation with the group on Employer-Employee Relationships. Among the matters which have received our attention are the following:

We studied and offered suggestions on the report of the Committee on Employer-Employee Relationships submitted July and August 1945.

We gave careful consideration to the report of Dr. Edgar S. Genstein of Kem Products, particularly relating to the Illinois licensing bill.

We reviewed and studied the report to the Editor of the *Chicago Chemical Bulletin,* Dr. Sidwell, on his ballot of the membership of the Chicago Section of the American Chemical Society, showing the ratio

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of those favorable and unfavorable to licensing of chemists.

We reviewed the article on "Licensing of Professional Men" by Mr. H. A. Wagner of the American Association of Engineers.

We have recently completed a review with suggestions for rebuttal of the article by Charles L. Parsons, entitled "Should Chemists Be Licensed?—No!".

Respectfully submitted,
Frank G. Breyer
Harry L. Fisher
Charles N. Frey
J. W. E. Harrisson
Raymond E. Kirk
Harold A. Levey
Frank O. Lundstrom
Robert J. Moore
A.F.Shepard
Foster D. Snell
M. C. Taylor
Vanderveer Voorhees
W. D. Turner,
Chairman.

Employer-Employee Relationships Annual Report 1945-46

The Committee consisting of E. H. Northey, chairman, Marston L. Hamlin, J. M. McIlvain, George R. Royer, and Foster Dee Snell was appointed at the May, 1945, meeting of the National Council to consider a program for instituting action in the field of employer-employee relationships as proposed by the New York Chapter.

The Committee prepared a report entitled "The Employed Chemist and His Employer" which was primarily for the purpose of advising young chemists seeking employment for the first time on a number of the factors which should be considered in securing a position offering lasting satisfaction. This report contains much valuable material which is of general application to employer-employee relationships affecting chemical personnel. 10,000 copies of the report have been printed and a portion of these distributed to colleges and universities for the advice of recent graduates. A further mailing has been made to the presidents and directors of research of companies employing five or more chemists. Indications are that the report has been well received by both chemists and those employers who are sincerely trying to improve their relationships with chemists.

To March 15, 1946, sixty-three replies were received in response to the mailing of reprints and all but one or two were very generous in praise of the report. Orders for 525 additional copies were included in this correspondence.

The Committee has in course of preparation a report covering conditions for termination of employment. Present practice among employers varies considerably where chemists are discharged for reasons other than just cause. The report discusses the subject and indicates what constitutes

good practice in the eyes of the INSTITUTE.

While the present Committee has made large contributions of the time of its members in attaining the concrete results of the past year, it feels that this is only a start on what might be done. However, more ambitious programs of action could be seriously handicapped by finances and the limited time available from the very busy lives of the members of the Committee.

—E. H. NORTHEY, *Chairman.*

Reports of other Committees and of the Chapters of the INSTITUTE will appear in the August issue of THE CHEMIST.

Garst With Bjorksten Laboratories

Dr. Johan Bjorksten, F.A.I.C., founder of The Bjorksten Laboratories, Chicago, Illinois, announces that Stephen D. Garst has joined the staff as chemical metallurgist. Mr. Garst was previously with the Dodge Chicago Plant of the Chrysler Corporation.

Dr. Harold W. Stiegler, F.A.I.C., since his release as lieutenant-colonel in the Army, is full-time director of research for the American Association of Textile Chemists and Colorists, with headquarters at Lowell Textile Institute, Lowell, Massachusetts.

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For Your Library

HACKH'S CHEMICAL DICTIONARY. Edited by Julius Grant. The Blakiston Co., 1946. 925 pp. Price $8.50.

This is the third edition of Hackh's Chemical Dictionary, revised and edited by Julius Grant, eminent London chemist, formerly a collaborator of Professor Ingo Hackh, author of the first two editions.

This volume contains over 57,000 entries and includes not only terms used in general chemistry but also many from physics, geology, mineralogy, botany, zoology, medicine, pharmacy, etc. The names of many scientists who have contributed to the progress of chemistry are also included. There are numerous tables, diagrams and illustrations. This book will be a useful addition to any library.

The second edition of "The Flow Meter Engineering Handbook" compiled and edited by Louis Gess and R. D. Irwin, is now available. It contains additional information and incorporates suggestions made by users of the first edition to improve its usefulness. Copies may be obtained for $2.50 each from the Brown Instrument Company, Philadelphia, Pennsylvania.

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Foster D. Snell, Inc., 305 Washington Street, Brooklyn 1, New York, has issued a leaflet entitled "Microchemical Services." Readers of THE CHEMIST may receive this without charge by writing to the corporation.

The Chemical Publishing Company, Inc., 26 Court Street, Brooklyn 2, N. Y., anounces that a new catalog of technical books is available to readers of THE CHEMIST, who request it from the Company.

A "Scarce Materials Timetable," indicating when the end of current shortages may be expected, has been published by the *N. Y. Journal of Commerce*, 63 Park Row, New York 15, N. Y. Copies may be obtained at twenty-five cents each.

Acheson Colloids Corporation, Port Huron, Michigan, has issued Technical Bulletin 140.1, which deals with "Controlling Static Electricity on Belts with 'Dag' Colloidal Graphite."

Wallace Clark and Company, consulting management Engineers, 521 Fifth Avenue, New York 17, N. Y., have issued a booklet, "Planning of Research and Development Work", which is a statement of their experience in this field. Readers of THE CHEMIST may obtain a copy without charge upon request to the company.

The Office of the Publication Board, Department of Commerce, is beginning the selection and microfilming, in Germany, of data that may be valuable to American science and industry. It would like industries and scientific groups to suggest specific information that should be sought. If readers of THE CHEMIST have suggestions as to where valuable documents might be found and what industries in Germany might possess information not now available, please send them, together with a description of specific information that should be sought, to John C. Green, Executive Secretary, Office of the Publication Board, Department of Commerce, Washington 25, D. C.

The Dow Corning Corporation, Midland, Michigan, has issued a four-page leaflet, on "Silastic, The Dow Corning Silicone Rubber", which is available on request.

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Society for Applied Spectroscopy Organized

The Society for Applied Spectroscopy has been organized by spectroscopists in the Metropolitan area (New York) for the purpose of holding general discussions of problems in spectroscopic analysis. Meetings are held the first Tuesday evening of each month. Topics for discussion are: Types of equipment; measurement of radiant energy; absorption spectra; and spectroscopic nomenclature. The Secretary is Charles L. Guettel, Driver-Harris Company, Harrison, New Jersey.

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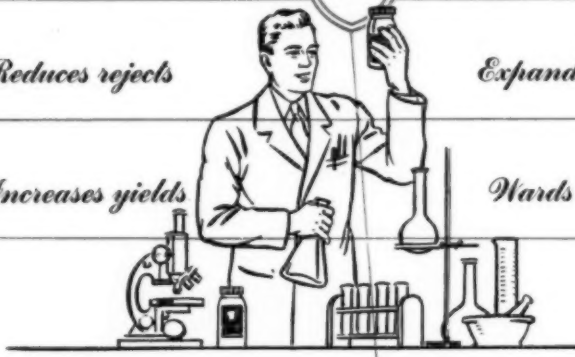

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